



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,663	12/01/2003	Radoslav Danilak	NVID-P001159	5113

7590 01/27/2006

WAGNER, MURABITO & HAO LLP
Third Floor
Two North Market Street
San Jose, CA 95113

EXAMINER

LEE, CHUN KUAN

ART UNIT PAPER NUMBER

2181

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,663

Applicant(s)

DANILAK ET AL.

Examiner

Chun-Kuan (Mike) Lee

Art Unit

2181

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-8,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) 2-5, 9-11 and 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-8,12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. In the previous office action, restriction to one of the following inventions was required under 35 U.S.C. 121:

- I. Claims 1-4 and 8-10 drawn to a system method of data transfer, classified in class 710, subclass 33.
- II. Claims 5 and 11 drawn to a system method of a status update notification, classified in class 710, subclass 19.
- III. Claims 6-7 and 12-13 drawn to a system method for controlling memory access to a storage device classified in class 711, subclass 154.

Applicant's election without traverse of claims 6-7 and 12-13 in the reply filed on 11/01/2005 is acknowledged. Examiner will examine claims 1, 6-8 and 12-13 on the merits, since claims 1 and 6 are generic claims.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6-8 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Chisholm et al. (US Patent 5,968,143).

2. As per claims 1 and 8, Chisholm teaches a disk controller and a bridge component for implementing efficient disk I/O for a computer system, comprising:

a bus interface (memory host controller 109 and I/O bridge 111 of Fig. 3) for interfacing with a processor (host processing unit 103 of Fig. 3) and a system memory (host memory 107 of Fig. 3) of the computer system (Fig. 3);

a disk controller (local interface controller 113 of Fig. 1) for executing disk I/O transaction for the computer system, the disk controller further comprising:

a disk I/O engine (data/command block transfer controller 209 of Fig. 3) coupled to the bus interface (Fig. 3); and

a device interface (Fig. 2 ref 217) coupled to the disk I/O engine for interfacing the disk I/O engine with a disk drive (storage device 114 of Fig. 1), wherein the disk I/O engine is configured to cause a start up of the disk drive upon receiving a disk start up command (command transfer start signal) from the processor, the disk I/O engine further configured to execute a disk transaction by processing the disk transaction information (command block 304 of Fig. 3) from a bypass register (local memory 203 of Fig 3) coupled to the disk I/O engine (col.5 l. 1 to col. 6, l. 8).

3. As per claim 6, Chisholm teaches the disk controller and the bridge component for implementing efficient disk I/O for a computer system, comprising the disk controller further comprising a CPB pointer buffer (command address queue 309 of Fig 3) coupled to the disk I/O engine for dynamically appending a plurality of CPB pointers (addresses

Art Unit: 2181

pointing to where the command blocks are stored) to extend to a number of disk transactions scheduled for execution by the disk I/O engine (col.5 l. 1 to col. 6, l. 8).

4. As per claim 7, Chisholm teaches a disk controller and bridge component for implementing efficient disk I/O for a computer system, comprising the disk controller further comprising a chain memory (local command address images 309 of Fig 3, wherein the addresses are subsequently stored and retrieved in a chain) coupled to the disk I/O engine for buffering a plurality of CPBs to extend to a number of disk transactions scheduled for execution by the disk I/O engine (col.5 l. 1 to col. 6, l. 8).

Claims 12-13 repeat the limitations of claims 6-7 and are therefore rejected accordingly.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571)272-0671. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571)272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.K.L.
01/23/2006



KIM HUYNH
SUPERVISORY PATENT EXAMINER

1/23/06